



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

20NR-10
Job Sheet 190616



Part No: 20NR-10

Job Qty: 2 pcs

Part Name: Spacer



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 2/12/19

Job Tracking No:

Due Date: 3/15/19 April 10

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG 20NR-10 Rev. 8 IPP Rev. A 18.06.15 new issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier	Sign-off
					Setup Hrs	Run Hrs		
100	Bandsaw - 1	2 pcs	3/15/19	3/15/19	0.00	0.33	Bandsaw - 1	J.C.-L.
120	NV5000 - 1 - B4B	2 pcs	3/15/19	3/15/19	0.00	2.00	NV5000 - 1 - B4B	J.C.-L.
							NV5000 - 2 - B4B	
130	QC 2	2 pcs	3/15/19	3/15/19	0.00	0.00	QC 2 - 1	
							QC 2 - 12	
							QC 2 - 14	
							QC 2 - 17	
							QC 2 - 19	
							QC 2 - 2	
							QC 2 - 20	
							QC 2 - 22	
							QC 2 - 23	
							QC 2 - 25	
							QC 2 - 32	J.C.-L. 19-04-19
							QC 2 - 33	
							QC 2 - 35	
							QC 2 - 39	
							QC 2 - 4	
							QC 2 - 40	
							QC 2 - 44	
							QC 2 - 45	
							QC 2 - 48	
							QC 2 - 49	
							QC 2 - 50	
							QC 2 - 51	
							QC 2 - 52	
							QC 2 - 54	
							QC 2 - 56	
							QC 2 - 57	
							QC 2 - 62	
							QC 2 - 63	



Container No: S168510



Part: 20NR-10

Job No: 190616

Serial No/Batch: S168510

Revision: 8

Inspector:

Exp Date:

Instructions:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 04/02/19

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140 QC 8	2 pcs	3/15/19	0.00 0.00	QC 2 - 8	
				QC 2 - 66	
				QC 2 - 64	
				QC 8 - 12	
				QC 8 - 14	
				QC 8 - 17	
				QC 8 - 20	
				QC 8 - 25	
				QC 8 - 3	
				QC 8 - 32	
				QC 8 - 33	
				QC 8 - 35	
				QC 8 - 39	
				QC 8 - 4	
				QC 8 - 44	
				QC 8 - 45	
				QC 8 - 49	
				QC 8 - 58	
				QC 8 - 8	B.A 17-04-09
				QC 8 - 9	
				QC 8 - 68	
				QC 8 - 67	
				QC 8 - 1 (A)	
				QC 8 - 47	
150 Outsource - 4 - Anodize	2 pcs	3/15/19	0.00 0.00		04/09/2019 PL
160 Packaging 2-1 - Receive - B4B	2 pcs 1 pcs	3/15/19	0.00 0.00	Packaging 2 - 1 - B4B	
				Packaging 2 - 2 - B4B	
				Packaging 2 - 3 - B4B	
				Packaging 2 - 5 - B4B	
				Packaging 2 - 4 - B4B	
				Packaging 2 - 6 - B4B	
				Packaging 2 - 7 - B4B	
				Packaging 2 - 8 - B4B	
				Packaging 2 - 9 - B4B	
				Packaging 2 - 10 - B4B	
				Packaging 2 - 11 - B4B	
				Packaging 2 - 12 - B4B	
				Packaging 2 - 13 - B4B	
				Packaging 2 - 14 - B4B	
				Packaging 2 - 15 - B4B	DP APR 15 2019
				Packaging 2 - 16 - B4B	
				Packaging 2 - 17 - B4B	
				Packaging 2 - 18 - B4B	
				Packaging 2 - 19 - B4B	
				Packaging 2 - 20 - B4B	
				Packaging 2 - 21 - B4B	
				Packaging 2 - 22 - B4B	
				Packaging 2 - 23 - B4B	
				Packaging 2 - 24 - B4B	
				Packaging 2 - 25 - B4B	
				Packaging 2 - 26 - B4B	
				Packaging 2 - 27 - B4B	
				Packaging 2 - 28 - B4B	
				Packaging 2 - 29 - B4B	
				Packaging 2 - 30 - B4B	
				Packaging 2 - 31 - B4B	
				Packaging 2 - 32 - B4B	
				Packaging 2 - 33 - B4B	
				Packaging 2 - 34 - B4B	

170 QC 6	2 pcs	3/15/19	0.00 0.00	Packaging 2 - 35 - B4B	
				Packaging 2 - 36 - B4B	
				QC 6 - 42	
				QC 6 - 9	
				QC 6 - 68	
180 Packaging 3-2 - Stock - B4B	2 pcs	3/15/19	0.00 0.00	QC 6 - 61	
				Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
190 QC 21 - SA	2 pcs	3/15/19	0.00 0.00	QC 21 - SA - 21	
				QC 21 - SA - 70	
				QC 21 - SA - 53	

APR 16 2019
DAS
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DAS
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APR 18 2019
DAS
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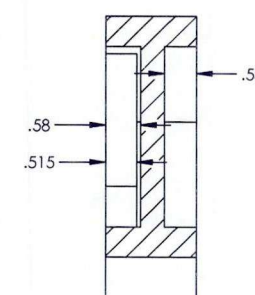
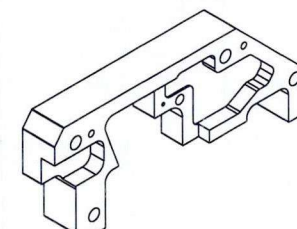
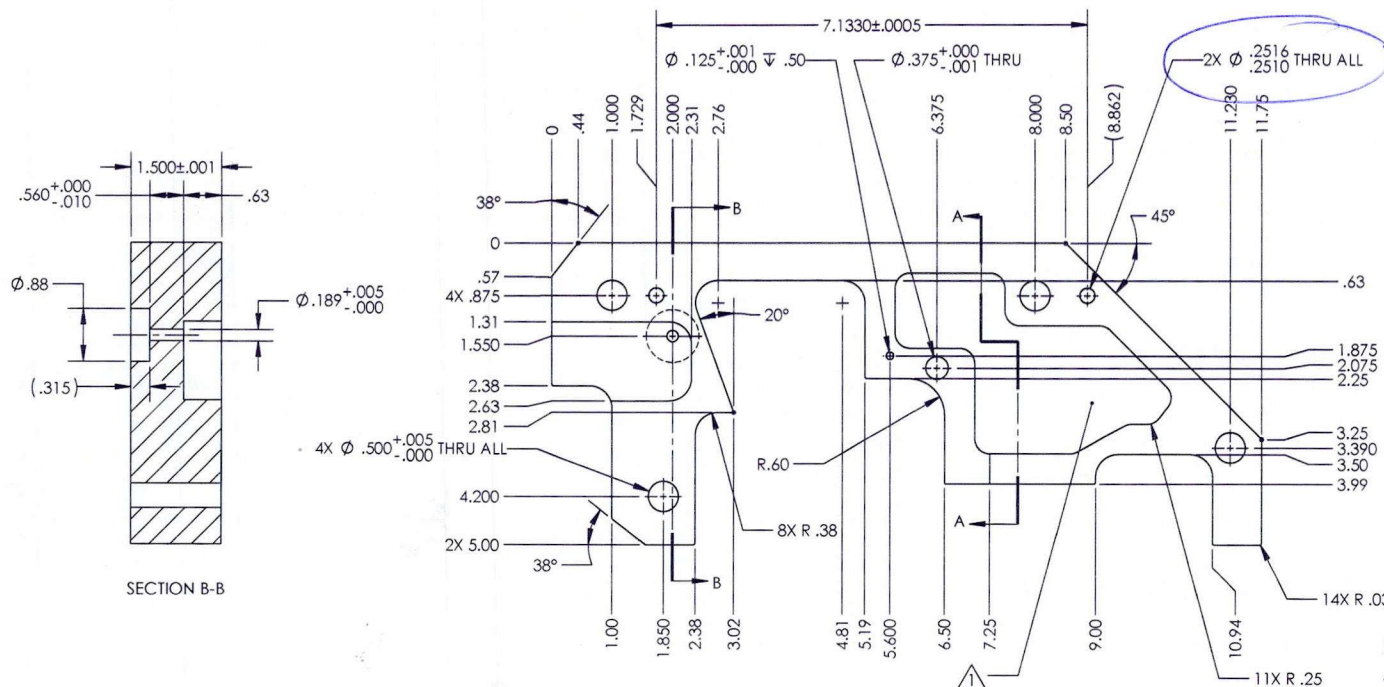
Part Op 100 - (Bandsaw)1- Cut ~~1.85~~ 11.95" long
 Descriptions: 120 - (MORI SEIKI VERTICAL MACHINE #1)***Face blank to 5.00"X11.85"*** 1-Machine as per folio FC 683 FOLIO
 REV: 44 DWG REV: 8 2-Deburr
 130 - QC2- Inspect parts off machine FAI/FAIB) Engrave B/N number using Marktronic engraver as per DWG FE
 140 - (QC8- Inspect parts - second check
 150 - (Outsource process-Anodize per QSI017 4.1.10.1)-Issue P/O to GROUPE ALTECH; PO 043150 -ANODIZE
 COLOR GOLD, PER IAW MIL-A-8625F TYPE 2 CLASS 2, Water sealant -Material type; 6061 -Certificate of Conformity is
 required
 160 - (Receive & Inspect for Damage & Mat'l Certs)Receive
 170 - QC6- All purchased or subcontracted products)
 180 - Identify as per dwg & Stock Location: _____)Identify and Stock
 190 - (QC21- Final Inspection - Work Order Release)

Job BOM				
Part / Item	Component Name	Quantity	Operation	Container
M6061T6B1.500X6.000 <i>DAS AA 3.99</i>	6061T6 Bar 1.500 X 6.00 <i>1.75 x 6.00 x 11.93"</i>	1.9800 ft (.99 ea)	100-Bandsaw - 1	<i>S166720</i>
Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
100-Bandsaw - 1	M6061T6B1.500X6.000	2	0	0
Part Specifications				
Specifications could not be found.				

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REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL
6		AS DRAWN BY CANAM	7/22/2013	CFS
7	14-0101	CH'D TITLE BLOCK WAS RED BARN IS DART. ADDED MACHINE ENGRAVE NOTE. CH'D DIMENSION TOLERANCES ON NON-CRITICAL DIMENSIONS.	7/30/2014	DJN
8	14-0155	CH'D DIMS WAS .875 IS 4X .875, WAS 4X Ø.500 THRU IS 4X Ø.500 +.005-.000 THRU ALL. DELETED DIM .875, ADDED DIMS 2X Ø.2510-.2516 THRU ALL, 1.729, (8.862), 7.1330±.0005.	9/30/2016	DPD



NOTES:

1. MACHINE ENGRAVE BATCH NUMBER.
2. ANODIZE GOLD FOR 20NR, ANODIZE BLUE FOR 8NR.

USED ON	
20NR	
8NR	

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 190616 MLS
19-02-12

DART AEROSPACE	
TITLE SPACER	
DWG NO. 20NR-10	REV 8
MAT'L: 6061 FINISH: SEE NOTE 2 SPEC: MIL-A-8825F, TYPE II, CLASS II DRAWN BY: CANAM CHECKED: CLOUGH OPFS APPR: ANDERSON QA APPR: LINDSAY APPROVED: GILBERT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES ± 125° 1. BREAK ALL SHARP EDGES 2. DIMENSIONAL LIMITS APPLY 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
SCALE 1:2	DATE 12/1/1995
SHEET 1 OF 1	

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS
			20NR-10	1	SPACER	6061	

DART AEROSPACE LTD		Work Order:	190616
Description: Spacer		Part Number:	20 NR-10
Inspection Dwg: 200R	Rev: 8	Page 1 of 1	

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
11.75	± 0.010	11.750	✓		Caliper	
3.00	± 0.010	3.000	✓			JCL-08
0.500	± 0.005 ± 0.000	0.504	✓			
1.000	± 0.005	1.000	✓			
0.875	± 0.005	0.875	✓			
1.850	± 0.005	1.850	✓			
4.200	± 0.005	4.200	✓			
8.000	± 0.005	8.000	✓			
11.230	± 0.005	11.230	✓		H. G.	31006
3.390	± 0.005	3.389	✓		H. G.	
0.375	± 0.005 ± 0.001	0.374	✓		Pin Gauge	
0.375	± 0.005	0.375	✓		Caliper	
2.075	± 0.005	2.075	✓			
0.251	± 0.006 ± 0.000	0.251	✓		Pin Gauge	
1.729	± 0.005	1.729	✓		Caliper	
0.875	± 0.005	0.875	✓			
7.133	± 0.0005	7.133	✓			
5.600	± 0.005	5.602	✓			
1.875	± 0.005	1.875	✓			
1.500	± 0.001	1.500	✓			
0.88	± 0.010	0.875	✓			
0.189	± 0.007 ± 0.000	0.190	✓			
0.630	± 0.010	0.630	✓			
0.560	± 0.005 ± 0.000	0.553	✓			
0.515	± 0.005	0.515	✓			
0.580	± 0.000	0.580	✓			
0.53	± 0.010	0.530	✓			
0.500	± 0.010	0.500	✓			

Measured by: SC.L.	Checked by: D.A.	QC Inspector:
Date: 19-04-02	Date: 19-04-09	Date:

Engineering Approval: (If necessary)	Date:
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Rev	Date	Change	Revised by	Approved
A	14.07.31	New Issue	KJ	

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO043150



Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

Attention: Grenon, Sylvie

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO043150

PO Date: 4/9/19

Due Date: 4/15/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Phone:

Via: Ground

Pymt Terms: Net 60

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	189386	C45-2-1	Sideplate - MRK Outsource process- Anodize per QSI017 4.1.10.1) -Issue P/O to ATG: -ANODIZE COLOR BLACK, PER IAW MIL-A-8625F TYPE 2 CLASS 2, Water sealant -Certificate of Conformity is required	Firmed - X3		4/15/19	3 pcs	0 pcs	3 pcs	\$6.00/pcs	\$18.00

APR 15 2019

DP

Line Item Note *** RUSH - RUSH - RUSH ***
PLEASE DELIVER ASAP

2	192209	C45-9-1	Clock Spring Cover -Issue P/O; -ANODIZE COLOR BLACK, PER IAW MIL-A-8625F TYPE 2 CLASS 2, Water sealant -Material type; 6061T6 -Certificate of Conformity is required	Firmed - X17		4/15/19	17 pcs	0 pcs	17 pcs	\$6.00/pcs	\$102.00
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APR 15 2019

DP

Line Item Note *** NEED BACK APRIL 18,2019 ***



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO043150



Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3	190534	RBW109-3130-34-1-3	Rod, Ø2-5/8 X 11-1/2 -Issue P/O; -ANODIZE COLOR CLEAR, PER IAW MIL-A-8625F TYPE 2 CLASS 1, Water sealant -Material type; 6061T6 -Certificate of Conformity is required	Firmed X4	-	4/15/19	4 pcs	0 pcs	4 pcs	\$30.00/pcs	\$120.00
APR 15 2019 DP											

Line Item Note *** NEED BACK APRIL 18,2019 ***

4	192395	RB877212-08-21	Cap, Ø2 x 1-3/8 -Issue P/O; -ANODIZE COLOR RED, PER IAW MIL-A-8625 TYPE-2 CLASS-2, Water sealant -Material type; 6061T6 -Certificate of Conformity is required	Firmed X6	-	4/15/19	6 pcs	0 pcs	6 pcs	\$20.00/pcs	\$120.00
APR 15 2019 DP											

Line Item Note *** NEED BACK APRIL 18,2019 ***



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K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO043150



Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
5	190616	20NR-10	Spacer (note: please use the BLUE ones with 8NR and the GOLD ones with 20NR) (Outsource process-Anodize per QSI017 4.1.10.1)-Issue P/O to GROUPE ALTECH; PO -ANODIZE COLOR GOLD, PER IAW MIL-A-8625F TYPE 2 CLASS 2, Water sealant -Material type; 6061 -Certificate of Conformity is required	Firmed X1	-	4/15/19 APR 15 2019	1 pcs	0 pcs DP	1 pcs	\$12.00/pcs	\$12.00
Line Item Note *** NEED BACK APRIL 18,2019 ***											
	191265			Firmed X9	-	4/15/19	9 pcs	0 pcs	9 pcs	\$12.00/pcs	\$108.00
Sub Total:							10	0	10		\$120.00
Grand Total:										\$480.00	

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

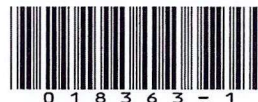
Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 4/10/19 8:40 AM dart.Lussier.Patrick

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Certificat de Conformité / Certificate of Compliance



2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

018363- 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.		Bon de commande Client Customer Purchase Order No.			
11-Apr-2019		SVETLANA DORZHIYEVA			043150			
#Ligne Line#	No. de Série / # Pièce Part Number /Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
1	C45-2-1 Rev.	C45-2-1 01 -ANO-BLACK [ANODIZE BLACK] MIL-A-8625F TYPE 2 CLASS 2	ANODIZE CH	3	3	0	0	0
2	C45-9-1 Rev.	C45-9-1 01 -ANO-BLACK [ANODIZE BLACK] MIL-A-8625F TYPE 2 CLASS 2	ANODIZE CH	17	17	0	0	0
3	RBW109-3130-34-1-3 Rev.	RBW109-3130-34-1-3 01 -ANO-CLEAR [ANODIZE CLEAR] MIL-A-8625F TYPE 2 CLASS 1	ANODIZE CH	4	4	0	0	0
4	RB877212-08-21 Rev.	RB877212-08-21 01 -ANO-RED [ANODIZE RED] MIL-A-8625F TYPE 2 CLASS 2	ANODIZE CH	6	6	0	0	0
5	20NR-10 Rev.	20NR-10 01 -ANO-GOLD [ANODIZE GOLD] MIL-A-8625F TYPE 2 CLASS 2	ANODIZE CH	1	1	0	0	0
6	20NR-10 Rev.	20NR-10 01 -ANO-GOLD [ANODIZE GOLD] MIL-A-8625F TYPE 2 CLASS 2	ANODIZE CH	9	9	0	0	0

DAS
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9-89

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.